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Hyper-power and Private Monopoly: the Unholy Marriage of (Neo) Corporatism and the Imperial Surveillance State

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It is unprecedented, claimed the Europeans, Asians, Africans and Latin Americans. How could the Americans spy on us – and the British in their wake? This has never happened before, and must never happen again. Comparisons were made to the East German Stasi and the Soviet KGB, perhaps forgetting the extraordinary undersea cable surveillance conducted by the US against the Soviet Union in the 1970s (Kazan 2013). But the real comparison is to the Eastern Telegraph Company and its offshoots in the Eastern Hemisphere, and International Telephone & Telegraph (ITT: Sampson 1973) in the Western. American hyper-power world dominance by public and private agencies has replaced British Empire hyper-power world domination in the period 1815-1914. Snowden's revelations have given rise to several important papers examining the geographical and territorial limits on the Internet, comparing it to the imperial telegraph (Kurbalija 2013) and even to the Roman imperial road (Moglen 2013).

This paper recalls earlier telegraphy research (Standage 1999, Hills 2007) and explains how the previous hyper-power (Marsden 2004, describing a global super-power without effective opposition, from the French *hyper-puissance*) was able to control communications in order to extend its extraterritorial application of domestic law. I explain that the telegraph 'cables that girdled the Earth' (Clarke 1958) were sunk into the sea in Cornwall, southwest England, and that today's Internet fibre cables are in the same places – with the result that the greatest National Security Agency espionage-gathering operation is a joint US/UK operation from the small town of Bude, Cornwall. Add to that espionage the invention of encryption/decryption computing, devices from Babbage's Difference Engine to Turing and Tommy Flower's Colossus Marks I and II that broke both Enigma and Lorenz¹. The recipe now exists for what the National Security Agency calls 'Total Information Awareness' and the Orwellian nightmare of totally efficient surveillance and 'war is peace' according to the Ministry of Truth². But it existed before, and we should learn from the past.

Cabling, Surveillance and the Spread of Western Capitalism

The British Empire was built by a miniscule nation-state, with enormous private corporations developing first the West Indies and Americas, famously rescinding economic growth in these territories when new opportunities in the East and South arose in the nineteenth century. The extraordinary British Navy sought and gained dominance of the North Atlantic in the Seven Years (1756-63) and Napoleonic Wars (1792-1815), with a largish blip in what the United States calls the Revolutionary Wars, but was in reality an Anglo-French war by proxy (Earle 2004)³. From the invention of the Monroe Doctrine in 1823, the Anglo-American powers were to hold the world's balance of communications power, especially after their destruction of the great majority of the Iberian and Chinese empires by 1898. Simon de Bolivar may have wrested independence from Spain in the 1820s, but recognised that the United States and Great Britain controlled the sea lanes that connected Latin America to markets in Europe and Asia⁴.

Two vital legal innovations enabled this increasing global control of trade on behalf of the Empire (Muchlinski 2007: 8, 34). The first was the invention of the joint stock corporation. The second legal innovation was the direct enforcement of English law across the globe.

The joint stock corporation enabled capital raising in London on an enormous scale, first to provide the investment in domestic railways which transformed the industrial and commercial base in the UK, a trick accomplished in large part by the year of revolutions (and economic collapse): 1848. Repeating the trick elsewhere

¹ See illustrations and history at <http://www.bletchleypark.org.uk/content/machines.rhtm>

² Foreign Minister Patino Aroca of Ecuador addressed the Security Council on August 6, stating: "We saw the size and the discretionary nature of a massive surveillance apparatus that suddenly brought all the inhabitants of the planet closer than ever to an Orwellian nightmare. We now know that everyone is considered a usual suspect by USA." At the same session, Foreign Minister Antonio de Aguiar Patriota of Brazil stated that: "[I]nterception of communications and acts of espionage...violate sovereignty, harm relations between nations and constitute a violation of human rights, in particular to privacy and of our citizens to information."

³ Earle (2004) explains in detail that the "British Navy" itself was an extraordinary multinational collection of rogues and vagabonds (many "press-ganged" in port), most of them dumped unceremoniously when disabled in action or when peace broke out. The largest share of the men-o'-war available were actually privateers – voluntary warships out to make a quick buck by raising the colours and boarding their otherwise commercial rivals, to entirely legally overtake the ships and turn them into further privateers. The crews were either captured and ransomed, or if less valuable massacred or turned into mercenaries for the Crown.

⁴ Simon de Bolivar (attributed) 1829: "[The United States] appears destined by Providence to plague America with miseries in the name of Freedom": Bushnell and Langley (2008) p. 135

was child's play (and many heirs' fortunes were fleeced by unscrupulous prospectus fiction authors), and the British built railways all over the world, including across South America as well as in the colonies. This stock raising was a vital extension of the directors' direct duties and investment which had enabled a more controlled stock growth in the great British East India Company (and its French, Dutch, Danish and other equivalents). The British unleashed wars of Christian-moralist fuelled occupation on Bengal then on the rest of India, pausing only when the whole of India was under their Wellington boot, with tightly controlled local dictators (the maharajahs) in place wherever possible, controlled by a British 'Resident' (equivalent to a US super-ambassador such as in Cairo, Kabul or Baghdad: James 1998)⁵. The British invaded Afghanistan in 1838 (and many other occasions) and helped create the heroin industry in that benighted country. British India was a literally captive market for those and other products. The British used corporate-financed fighters: mercenaries, special forces and privateers⁶. In the 'Opium Wars' of 1839-1842 and 1856-60, the British forced the defeated Chinese government to allow them to sell opium on the free market. They occupied and demanded Hong Kong Island which they occupied from 1841-1997, controlling Shanghai and other coastal cities, for themselves and other rapacious foreign powers such as the US, Germany and Japan. The British also occupied and stocked with Chinese 'bonded labour' (slaves in all but name) the Malay archipelago, even installing a 'White Rajah' adventurer in Borneo.

The second legal innovation was the direct enforcement of English law across the globe, and this enforcement is best exemplified by the Africa Squadron of the British Navy, which fought to enforce anti-slavery law against United States slavers on the open seas⁷. The financing of the Suez Canal by the British government (Egyptian government bought out 1875, occupation of the canal zone completed 1888), and Panama by the United States, completed their encirclement of the globe, which they had girdled with telegraph cables. Throughout the nineteenth period, the British were tightening their grip on the route to the East, via both Suez and Cape of Good Hope (the invasion of the Boer Republic completing that occupation in 1902).

Military-Industrial Information Governance in the Telegraph Era

Early industrial innovations were to blossom in the second half of the nineteenth century, when the great genius Isambard Kingdom Brunel's innovations would confirm Britain's place as the first truly global power⁸. The last sheltered beach at the extreme south-west of England is Porthcurno, a beach which was the centre of the surveillance intelligence complex of the British Empire and today houses a museum to that communications

⁵ Arthur Wellesley learnt his warrior trade at his brother's side in southern India in the last decade of the nineteenth century. The British were inspired by their very own 9/11: the 'Black Hole of Calcutta', an incident in which British soldiers and other European civilians were entombed for the night of 20 June 1756 in a prison that led to between 40 and 123 dying of asphyxiation and complications. The British were to thrash the interior of Africa into submission after a later *cause celebre*, that of General Gordon who was killed at Khartoum in 1888, over a century later. It led to Barack Obama's Kenyan grandfather struggling for independence from this foreign occupation, and being tortured for his troubles in the 1950s.

⁶ The anti-pirate force off Somalia's coast in the early nineteenth century were British privateers and enforcers against Arab slaver dhows (Earle 2004). The special forces were men such as John Hanning Speke and especially Sir Richard Francis Burton (Farwell 1990). The mercenaries were any number of men, including those in the Jameson Raid in South Africa which predicated the Boer War of 1899-1902.

⁷ The abolition of slavery in 1807 was inconvenient for West Indian sugar plantation owners, though they (including oligarch heir David Cameron's forefathers) were handsomely compensated. The writing was partly on the wall after the independence struggle of Haiti in 1803, in any case. Nelson was the notable sailor-hero in the West Indies in the 1790s who saved the plantation owners from French domination, and whose heroic death at Trafalgar cemented Britannia's ruling of the waves for what became the next century. It was far more inconvenient for the former colonies, who maintained their slavery-founded cotton plantations and needed fresh blood supplies from West Africa. By the 1820s, the newly victorious British Navy was in the mood to show American slavers who was boss of the Atlantic, and the extraterritorial extension of British moral economics was to remove the slave trading supply by the 1830s in the Atlantic, and by the 1860s in the Indian Ocean.

⁸ Brunel had created an extraordinary railway in the west of England, constructing the world's fastest form of locomotion (the 'Iron Duke' class locomotive achieved a record 80mph in 1845, only surpassed in speed in 1893) leaving from the world's largest building by area enclosed (the present Paddington Railway Terminus opened in 1854). The Flying Dutchman journey from London to Penzance (the final rail station before the transatlantic telegraph and now Internet cable heads into the Atlantic Ocean) is today little faster than in the 1860s leaving from Brunel's great Terminus. From London to Exeter takes 3 hours 15 minutes on the fastest express in 2013, when the *Flying Dutchman* journey to Exeter took 4 hours 30 minutes in 1849: [http://en.wikipedia.org/wiki/Flying_Dutchman_\(train\)](http://en.wikipedia.org/wiki/Flying_Dutchman_(train)).

power⁹. Cornish beaches still serve a vital function in two legal rights. First, many beach foreshores are the property of the Duchy of Cornwall¹⁰, the Duke being the heir to the English (and thus Cornish) throne and still the sole arbiter of Crown prerogative at landing sites¹¹. Second, these cables connect Europe to Africa, Asia and the Americas via that extraordinary dominance of high-value communications controlled by a British company that became even greater in its own way than those of Brunel or the British East India Company. That company is now Cable & Wireless, or the Eastern Telegraph Company as it was then known (Barty-King 1980). The telegraph line that ran alongside every railway in the period after electrical telegraphy's invention in 1837¹² was realized to be capable of intercontinental reach¹³. The prize achieved in 1866 was the ability to communicate in nearly real time between the great commercial centres of London and New York, and eventually to all the railheads that the joint stock companies were building into the Argentine pampas, the Himalayan hill stations, and the red heart of Australia. With that dot-dash information came control and power, both commercial and governmental.

This prize was of inestimable commercial value – such that no serious obstacle to capital raising was ever encountered after the proof of concept cable to the Americas was first built and tested. Military and surveillance value was even greater. Consider the Indian Mutiny of 1857, which laid to rest the direct rule of India by the East India Company, the British Crown taking over formal responsibility. But it took so long to relay information, that it was evident that radical reform of communication to India and China was required. Werner von Siemens first achieved the feat via land, closely followed by Charles Bright's Eastern Telegraph (Kimberlin 1994). Bright then laid the 1870 Bombay submarine cable, 1872 Singapore-Shanghai/Australia cable and 1872 merger that created the Eastern Telegraph Company. Glover argues that “The Indo-European submarine cable and the formation of the Eastern Telegraph Company are one and the same story” (Glover 2011). British Prime Minister Disraeli in 1875 bought a controlling interest in Frenchman Ferdinand de Lessep's Suez Canal – which would condemn Egypt and much of the Gulf and Red Sea to British military occupation for over eighty years in the interests of British shipping and the cable. Note that the first trans-Pacific cable was only operationalized in 1903, using British-controlled Fanning Island rather than Hawaii to maintain the ‘all-red’ system of cable landing stations within the Empire (Kennedy 1971).

Even where commercial interest had not driven a cable, military need would help the march of the joint stock corporation. The longest undersea cable prior to the failed 1857 Atlantic cable was laid by the Anglo-French Expeditionary Force across the Black Sea to the Crimean Peninsula in 1854 (Kimberlin 1994). The failed Jameson Raid on the gold and diamond-rich Transvaal Republic in 1895 led rapidly to the full military invasion of the Transvaal on 11 October 1899, and the invention of the concentration camp (the British ‘Guantanamo’) to control the Boer families' loyalty. The Boer War needed more British telegraphs than then existed too, as Glover (2011) details. The speed of construction in the mid-Atlantic shows the efficiency and reach of the ETC, and with it the British Empire, only forty years after the first successful undersea cable. Together with the ‘all-red’ imperial undersea cable routes, a virtual monopoly on cable-laying (and therefore cutting) ships in the service of the Eastern

⁹ ‘Porth Kernow’ in the native Cornish language.

¹⁰ See *R (on the application of) Cityhook Ltd & another v Office of Fair Trading* [2009], EWHC 57 (Admin) Case No: CO/7886/2006, at <http://www.bailii.org/ew/cases/EWHC/Admin/2009/57.html> appealed from *Cityhook Limited v Office of Fair Trading* [2007] CAT 18 (03 April 2007) at: <http://www.bailii.org/uk/cases/CAT/2007/18.html>

¹¹ Prices for these cables' ‘landing rights’ are extraordinarily high, and in the control of the Duchy – telecommunications companies' pleas for more reasonable prices rejected by the English courts as *ultra vires* the Crown prerogative. Not since King Arthur's legend has a prince extracted such a ransom for ownership of a Cornish beach. Today's cable companies discussed the Duchy's control as an existential territorial threat: “The real danger is that our industry must plot its own destiny and once we have accepted a covert proposal of this sought on Duchy beaches then it may quickly spread to other beach landings.” In a bitterly contested ruling, the UK competition authority closed a decade long investigation into the Duchy's monopolistic price gouging of UK and United States telecoms and submarine cable companies (‘United Kingdom Cable Protection Committee’). Supra n.10 at paragraph 31 per Level 3.

¹² By many separate contesting inventors, Morse in the United States for instance

¹³ The line had to be long and strong enough (2300 miles and 9000 tonnes) to be capable of surviving being paid out from a ship with engines mighty enough be found to power such an unholy leviathan that could smash through Atlantic hurricanes at a steady speed, never pausing in the face of the 100-foot waves that are common in that maelstrom (though in fairness cable laying was conducted in July-August). That enormous ship would have to be steady in storms to prevent breakage as it unspooled and aid the cable in the great Atlantic storms, and was the creation of Brunel's remarkable genius: the 700-foot long SS Great Eastern (launched in 1858 as SS Leviathan, only surpassed in size in the twentieth century).

Telegraph Company and her siblings, and the extraordinary advantage of the Royal Navy protecting landing stations, this ensured British cable security – and the insecurity of other empires. At the outbreak of the Great War in 1914, German communication cables were immediately cut, and the Navy sank German cable-destroyer SMS Emden in the Cocos Islands, leaving only Fanning Island briefly vulnerable to the German Pacific fleet (Kennedy 1971). With Navy-approved censors on all landing stations and operators approved by the wartime censors, preventing encrypted communications being sent, Germany was largely cut off from her Empire within weeks of war breaking out. Wireless telegraphy was both less secure and technologically immature in this period, though it would predominate as a means of German telegraphy by 1939, with Enigma machine encryption and its heroic hacking by the Bletchley Park digital computing team inspired by Alan Turing.

Whistle blowers also have a long history. As explained to the most recent Sam Addams award winner, Edward Snowden, at his awards ceremony:

“in 1773, Benjamin Franklin leaked confidential information by releasing letters written by then-Lt. Governor of Massachusetts Thomas Hutchinson to Thomas Whatley, an assistant to the British Prime Minister. The letters suggested that it was impossible for the colonists to enjoy the same rights as subjects living in England and that “an abridgement of what are called English liberties” might be necessary. The content of the letters was so damaging to the British government that Benjamin Franklin was dismissed as colonial Postmaster General and had to endure an hour-long censure from British Solicitor General Alexander Wedderburn.” (Murray 2013)

Franklin was an Englishman turned rebel, and the British government swiftly replaced him as Postmaster General and therefore censor-in-chief. This was a very early example of the control over international communications within the Empire that was to be perfected in the ‘Victorian Internet’ telegraph era. At time of war, their approach to telegraph was simple: no encrypted telegraph traffic would be retransmitted by British operators. The comparison to the current interception of both plain and encrypted communications on the post-Victorian Internet by both the British and United States governments is plain to see.

Conclusion: The Industrial-Surveillance Complex, Whistle-Blowers and Governance

The world has changed less than we think, and the battle between tyranny and freedom is eternal and geographical. While the reach of international human rights law was severely limited in the nineteenth century, largely a matter of humanitarian aspects of the law of war and the extraterritorial application of domestic anti-slavery laws by the hyper-power Great Britain, we now live in what are claimed to be more enlightened times. The first Internet link outside North America was to Norway (as part of the North Atlantic Treaty Alliance) in 1973. Four decades later, we have wired Africa, if a little less speedily than the Victorians. The cabling of the planet for the Internet uses much the same undersea lanes and develops from those technologies. Geography matters, and so does territorial sovereignty. Information flows through those cables, and he who controls the cables controls the information.

The tapping of telegraph lines and blocking of encrypted messages was *de rigueur* in the Victorian era but has been challenged under international human rights law in the twenty-first century. On 24 September 2013, Brazilian President Rousseff lectured President Obama at the General Assembly on the error of his ways, and called for five fundamental digital rights on the Internet:

1. “Freedom of expression, privacy of the individual and respect for human rights.
2. “Open, multilateral and democratic governance, carried out with transparency by stimulating collective creativity and the participation of society, Governments, and the private sector.
3. “Universality that ensures the social and human development and the construction of inclusive and non-discriminatory societies.
4. “Cultural diversity, without the imposition of beliefs, customs and values.
5. “Neutrality of the network, guided only by technical and ethical criteria, rendering it inadmissible to restrict it for political, commercial, religious or any other purposes.”

The likelihood that multistakeholder civil society is able to exercise useful scrutiny and control over hyper-power politicians and their obedient corporate clients may appear remote, and the call for international norms for human rights law quixotic, but the Brazil Internet Governance Summit called for 23-24 April 2014 is a real attempt to do so (Marsden 2013). It could mark what some might call a tectonic shift in governance of communications, somewhat confirmed by the decision to reduce the US Department of Commerce’s role in controlling the Domain Name System, authority proposed to be ceded to ICANN on 14 March 2014, a month before that

politically sensitive Brazil summit¹⁴. Cables may girdle the Earth in only 66.8 light milliseconds (rather than Shakespeare's forty minutes¹⁵), but we are more slowly emerging from a nightmare of covert Internet surveillance into the shadowy half-light of governance.

Sources

Bushnell, David and Lester D. Langley (2008) *Simón Bolívar: Essays on the Life and Legacy of the Liberator*

Barty-King, Hugh (1980) *Girdle Round the Earth: History of "Cable and Wireless"*, William Heinemann.

Clarke Arthur C. (1958) *I'll Put a Girdle Round the Earth in Forty Minutes*, American Heritage Publishing Co., Inc.

Earle, Peter (2004) *The Pirate Wars: Pirates vs. the Legitimate Navies of the World*, Methuen Publishing Ltd

EurActiv [2013] *Parliament to launch enquiry into US eavesdropping*, 3 July 2013, at <http://www.euractiv.com/justice/meps-set-inquiry-group-wiretappi-news-529048#.UdPo76hNdhI.twitter>

Farwell, Byron (1990) *Burton: A Biography of Sir Richard Francis Burton*, Penguin [original 1963].

Glover, Bill [2011] "The Evolution of Cable & Wireless, Part 2" in *History of the Atlantic Cable & Undersea Communications: from the first submarine cable of 1850 to the worldwide fiber optic network*, at <http://www.atlantic-cable.com/CableCos/CandW/Eastern/>

Gustin, Sam [2013] *NSA Scandal: As Tech Giants Fight Back, Phone Firms Stay Mum*, July 03, 2013 at: <http://business.time.com/2013/07/03/nsa-scandal-as-tech-giants-fight-back-phone-firms-stay-mum/#ixzz2Y1NVwnAN>

Hills, Jill (2007) *Telecommunications and Empire*, University of Illinois Press.

James, Lawrence (1998) *Raj: The Making and Unmaking of British India*, Little, Brown.

Kennedy, P. M. (1971) Imperial Cable Communications and Strategy, 1870-1914, *The English Historical Review*, Vol. 86, No. 341, pp. 728-752, Article Stable URL: <http://www.jstor.org/stable/563928>

Kimberlin, Donald E. (1994) *Subject: Re: Need Date of First Undersea Cable*, 14 May Telecoms Digest Vol. 14 No.7 archived at <http://massis.lcs.mit.edu/archives/history/underseas.cables> - the Northwestern/MIT archive of telecommunications history supported by the International Telecommunications Union

Khazan Olga (2013) *The Creepy, Long-Standing Practice of Undersea Cable Tapping*, *The Atlantic*, July 16 at <http://m.theatlantic.com/international/archive/2013/07/the-creepy-longstanding-practice-of-undersea-cable-tapping/277855/>

Kurbalija Jovan (2013) *Back to cable geo-politics?* 7 October at <http://www.diplomacy.edu/blog/back-cable-geo-politics-first-part>

Marsden, C. (2004) *Hyperglobalized Individuals: the Internet, globalization, freedom and terrorism* 6 Foresight 3 at 128-140.

Marsden, C. (2013) *The Road From Bali To Rio To Dystopia*, London School of Economics Media Policy Blog, Internet Governance Series, at <http://blogs.lse.ac.uk/mediapolicyproject/2013/10/31/internet-governance-series-the-road-from-bali-to-rio-to-dystopia/#more-5543>

Moglen, E. (2013) *Snowden and the Future PART I: Westward the Course of Empire*, 9 October at <http://snowdenandthefuture.info/PartI.html>

Muchlinski, Peter (2007) *Multinational Enterprises and the Law*, 2nd edition, Oxford University Press.

Murray, C. (2013) *Edward Snowden Gets Sam Adams Award*, 11 October at <http://www.craigmurray.org.uk/archives/2013/10/edward-snowden-gets-sam-adams-award/>

¹⁴ Details remain limited at time of writing, but the idea is that the IANA functions be further devolved to ICANN by 2015. See NTIA (2014).

¹⁵ The often used (in this essay) quotation "I'll put a girdle about the Earth in forty minutes" is taken from Puck's exit in Shakespeare, W. (1590/96) *A Midsummer Night's Dream*, Act 2, Scene 1, at <http://shakespeare.mit.edu/midsummer/full.html>.

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2
3 National Telecommunications Infrastructure Administration (2014) NTIA announces intent to transition key
4 internet domain name functions, 14 March at [http://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-](http://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-transition-key-internet-domain-name-functions)
5 [transition-key-internet-domain-name-functions](http://www.ntia.doc.gov/press-release/2014/ntia-announces-intent-transition-key-internet-domain-name-functions)

6 *R (on the application of) Cityhook Ltd & another v Office of Fair Trading* [2009], EWHC 57 (Admin) Case No:
7 CO/7886/2006, at <http://www.bailii.org/ew/cases/EWHC/Admin/2009/57.html>

8 Sampson, Anthony (1973) *The Sovereign State: The Secret History of ITT*. London: Hodder and Stoughton
9 ISBN 0-340-17195-2

10 Shakespeare, W. (1590/96) *A Midsummer Night's Dream*, Act 2, Scene 1, at
11 <http://shakespeare.mit.edu/midsummer/full.html>

12 Standage, Tom (1999) *The Victorian Internet*. Phoenix.
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